REMARKS

This amendment is responsive to the Office Action dated December 28, 2007 and received in this patent application. Entry of this amendment after final is believed appropriate in the interest of expedited prosecution as the amendments are believed to place the application in condition for immediate allowance. In the amendment, claims 1, 3, 4 and 6 have been amended, and claims 7 and 8 have been cancelled without prejudice or disclaimer of their underlying subject matter. Claims 1, 3, 4 and 6 remain pending in the application. Reconsideration of the pending claims in light of these amendments and the following remarks is respectfully requested.

These amendments add no new matter. Structure and operational description of a stream transmitting portion having a buffer memory that performs a FIFO operation, as well as the corresponding interval counter and scheduler features are found in FIG. 4 and the related description thereof in the specification as filed.

Claims 1, 3, 4 and 6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pub. No. 2004/0114516 A1 to Iwata ("Iwata") in view of U.S. Pat. No. 7,039,063 to Krishnakumar ("Krishnakumar"). This rejection is traversed.

Claim 1 has been amended and now recites: *[a] data transmitting apparatus for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising:*

a storing portion for storing first packets that compose the real time streams and second packets that compose the non-real time stream so that a first-in-first-out operation is respectively performed for every stream;

a counter portion for counting an interval time of the first packets for every said real time stream; and

a scheduler portion for transmitting the first packets stored for every said real time stream in the storing portion every said interval time period, calculating a transmission end time of the first packets from the interval time and a transmission time of the first packets of each of the real time streams for every said real time stream and transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of said first packets are longer than the transmission times of the second packets.

These claimed features are neither disclosed nor suggested by Iwata. As previously noted, Iwata discloses packet scheduling to avoid transmission delay and jitter of a premium packet while still efficiently transmitting a low priority packet. The low priority packet is divided into a plurality of packets each having a length which falls within a transmission interval of the premium packet and scheduled dynamically based on the transmission interval or load state of the premium packet.

With regard to Iwata, the Action states that Iwata discloses if the load state indicates that the division is necessary, the schedule 32 divides the "low priority packets" into a plurality of packets (citing Iwata paragraph 0043) and thereafter updates the scheduling queue as shown in step 204 of FIG. 4 (citing Iwata paragraph 0044). (Action, at p. 6). It is believed that this merely highlights that Iwata is fundamentally distinct from Applicant's claimed invention, wherein each of the real time streams and the non real time streams are respectively FIFO buffered and the scheduler portion transmits the respective packets according to the recited scheduling scheme. That is, in addition to respectively FIFO buffering the respective streams, the scheduler portion is *"for transmitting the first packets stored for every said real time stream in the storing portion every said interval time period, calculating a transmission end time of the first packets from the interval time and a transmission time of the first packets of each of the real time streams for every said real time stream and transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of said first packets are longer than the transmission times of the second packets."* The absence of the timing features is essentially admitted in the Action, but it is further

6

noted that Iwata fails to even disclose the basic type of FIFO buffering and corresponding scheduling as claimed by Applicant.

Krishnakumar does not remedy the deficiencies of Iwata. Krishnakumar discloses priority access for real time traffic in a contention based network. As noted previously, FIG. 5 illustrates timing involving "linked-list chain" transmission, wherein multiple real-time stations (e.g., RT1 through RT4) are all active, and wherein a current station of a chain invites the next station. (6:49-51 et seq.). Thus, for example, a subsequent real-time station in the chain (e.g., RT3) transmits in dependence upon whether it "sees" a transmission from the previous station (RT2). If station RT2 is ready to drop its connection, then it indicates this in a last packet, which prompts RT1 to invite RT3 as the next participant in the chain of transmission. (See, e.g., 7:14-30). Also described is a blackburst mechanism that accommodates for situations where a station unexpectedly discontinues transmission (i.e., does not indicate as such in a last packet).

The scheme of Krisnakumar is clearly distinct from that claimed by Applicant. Additionally, even if one accepts that there is generally some timing of real time streams in the overall system of Krishnakumar as set forth in p. 4 of the Action, the references, alone or in combination, still fail to disclose what is claimed. Specifically, the Action states that:

"Krishnakumar shows in FIG. 5 that four real-time stations RT1 through RT4 are all active, i.e., have an ongoing connection to another station. Having transmitted packets at times t_{40}, t_{41}, t_{42} and t_{43}, they set their respective timers to expire at times t_{50}, t_{52}, t_{54} and t_{55}. The timer interval t_{access} is illustratively equal to a conventional packetization interval ..."   (Office Action, at p. 4).

Krishnukumar thus clearly illustrates an example wherein respective real-time stations time their own packet transmission. There is clearly no disclosure or suggestion of scheduling as claimed by Applicant. In addition to failing to even generally disclosing the features recited for the scheduler portion, there is also clearly no disclosure or suggestion of "transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of said

first packets are longer than the transmission times of the second packets." There is no mention of these claimed features in either relied-upon reference.

Thus Iwata and Krishnakumar, whether alone or in combination, fail to disclose various claimed features, and a *prima facie* case of obviousness for claim 1 has not been presented. For reasons similar to those provided regarding claim 1, clam 4 is also neither disclosed nor suggested by the relied upon references.

Dependent claims 3 and 6 are also not disclosed, for their incorporation of the features respectively recited in their independent claims, as well as for their separately recited features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 3, 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Iwata in view of Krishnakumar.

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please

charge our Deposit Account No. 18-0013, from which the undersigned is authorized to draw, under

Order No. SON-2895.

Dated: February 28, 2008   Respectfully submitted,

                                             By_____
                                             Christopher M. Tobin
                                                 Registration No.: 40,290
                                             Ronald P. Kananen
                                                 Registration No.: 24,104
                                             RADER, FISHMAN & GRAUER PLLC
                                             Correspondence Customer Number: 23353
                                             Attorneys for Applicant